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(54) **SYSTEMS AND METHODS FOR
GENERATING SKIN TONE PROFILES**

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ABSTRACT

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A computing device with a digital camera obtains a reference image depicting at least one reference color and calibrates parameters of the digital camera based on the at least one reference color. The computing device captures, by the digital camera, a digital image of an individual utilizing the calibrated parameters. The computing device defines a region of interest in a facial region of the individual depicted in the digital image captured by the digital camera. The computing device generates a skin tone profile for pixels within the region of interest and displays a predetermined makeup product recommendation based on the skin tone profile.

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